#### 6. A BIRD STUDY TRIP TO THE LACCADIVE ISLANDS

The sandbank of Pitti and the atoll Baliapanni or Cherbaniani, in the Laccadive group of islands, have been known from the early nineteenth century to harbour many varieties of terns. The Administrator, Shri Murkot Ramunny, who is keenly interested in the bird life of the Islands, agreed to the Society's suggestion to explore the potentialities of the Laccadives as a centre for studying the breeding habits and migratory movements of terns in the Arabian Sea, and offered to take two members of the Society's research staff to the Islands.

We left Bombay on 12 October 1963, and on the 16th boarded at Calicut the cargo ship *Dhanalakshmi* chartered by the Administrator. Between the 17th and 22nd we visited six islands, viz. Kavrathi, Pitti, Agathy, Chetlat, Bitra, and Baliapanni in that order. None of them showed a distinctive fauna. White-eyes and koels were the only resident birds we saw, and crows are reported to occur on Amini Island. A species of skink was the only reptile seen by us though Shri Ramunny saw some snakes on an islet of the Baliapanni atoll.

Presented below in chronological order are brief accounts about the islands we visited:

17th October, Kavrathi, 10° 35' N., 72° 35' E. This is a little island some 865 acres in area with a fair-sized lagoon. It has scanty bird life. The islanders pointed to Pitti as the place where birds are seen in abundance.

18th October, Pitti, 10° 30' N., 72° 30' E. 'The extreme southernmost point of an enormous sunken sandbank about 200×300 yards in area, and standing some 6 or 7 feet above high watermark' is how Hume (1876) describes Pitti. We reached this island, which lies some 15 miles north-west of Kavrathi, by motor launch. As the island is surrounded by shallow water, we reached the beach in a countrycraft, piloted safely through the heavy surf and coral reefs by the experienced islanders hired by Shri Ramunny. The islanders held contradictory opinions on the bird population of this uninhabited sandbank, some holding that birds are seen here throughout the year and others that they leave by the end of October. It is certain that thousands of Philippine Noddies and Large Crested Terns nest here between April and September every year. By July the bird population reaches a peak and egg collectors have their fieldday! The present Administrator has banned all such collection trips. At the time we visited the island breeding activity at Pitti was

nearly over. We caught and ringed 16 and 18 young respectively of the Large Crested Tern (Sterna bergii) and the Philippine Noddy (Anoüs stolidus). As the young had not attained flight we could catch them after a good chase. A solitary nestling of the Noddy (about 2 weeks old) was also taken. A mist net we erected was totally ineffective in the high wind. We saw several flocks of Turnstones at Pitti. The islanders remarked that their nooses would have been effective in trapping such shore birds.

18-19th October, Agathy, 10° 50′ N., 72° 10′ E. Another fertile island, some 688 acres in area. Agathy is in the middle of an elliptical reef. It is thickly planted with coconut interspersed with breadfruit trees and is poor in bird life. White-eyes (Zosterops palpebrosa) and the Koel (Eudynamys scolopacea) were the only resident birds we saw. As we saw no crows we presume that koels are visitors from Amini or perhaps the mainland. An islander showed us a turtle dove (Streptopelia orientalis) which he had trapped for the pot. The species was reported to be a regular visitor after the monsoon.

19-20th October, Chetlat, 11° 44′ N., 72° 40′ E. A little island of some 255 acres, Chetlat has a beautiful sandy beach frequented by turnstones, Little Stints, and Kentish Plovers. As night sets in the lagoon is lit by millions of phosphorescent sea animals which almost form a luminous girdle around the island.

20th October, Bitra, 11° 35′ N., 72° 10′ E. The smallest (26 acres) inhabited island we visited, Bitra showed the largest number of shore birds. We noted nine varieties including a Pipit (Anthus sp.) and 6 to 8 Greyheaded Yellow Wagtails (Motacilla flava thunbergi). Bitra is part of a regular atoll, and has a shallow lagoon at its northern end.

20-21st October, Baliapanni or Cherbaniani, 12° 20′ N., 71° 50′ E. Hume describes Baliapanni as 'a long oval atoll some 6×2½ miles in its extreme dimensions'. We could visit only one islet in the atoll. The ship anchoring some 400 yards away from the atoll lowered a canoe and paddling along the north-west aspect of the atoll we landed on the islet without difficulty and began ringing. From a distance we had seen a gathering of Sooty and Brownwinged Terns, but the islet we visited appeared to be used almost exclusively by Brownwinged Terns. During our 2-hour stay, we ringed 5 young Brownwinged Terns and 18 nestlings. Our identification is based partly on the identity of the parent birds which would swoop down within a few feet as we handled the chicks. However, the eggs we

collected apparently belonged to another species'. We saw about a dozen rotten eggs and as many mummies of nestlings.

We could not explore any other islet in the group for lack of time, but suspect Sooty Terns to be breeding on another islet. As the party had to return to Calicut on the 23rd, Baliapanni was the last island we visited.

Pitti and Baliapanni as bird-ringing stations. From the information received from the islanders one fact emerges, viz. that between April and October Pitti and Baliapanni are used for breeding by large numbers of terns. Such enormous concentrations offer an excellent opportunity for studying the breeding biology of these terns. From the point of view of ringing April appears to be the best month. With assistance from the Administration, a batch of ringers can reach Kavrathi or Chetlat by cargo ship and using these islands as a base they can reach Pitti or Baliapanni by chartered motor launches (at about Rs. 30 per day) towing the country crafts needed for landing. About 6 islanders can take a party ashore safely. The main difficulty is that these sandbanks have no fresh water or shelter from weather, and unless adequate arrangements can be made the party will have to return to the base camp after finishing each day's work. Of the two islands Pitti is more easily, even though less safely, accessible, but Baliapanni has a greater variety of birds. The terns can be caught by hand, and islanders can be employed to trap turnstones with nooses.

These uninhabited islands can be turned into useful bird ringing stations but the cost per bird will be higher than on the mainland.

List of birds seen. The following species of birds were observed by us between October 16 and 22, either on or about the islands:

## Oceanites oceanicus (Kuhl). Wilson's Storm Petrel.

On passage between Calicut and Kavrathi this species was seen several times. Two or three of these birds followed the wake of the ship for a long time attracted by a baited line.

#### Oceanodroma leucorhoa monorhis (Swinh.). Ashy Storm Petrel.

Mr. Madhavan caught this bird as it came on the ship between Chetlat and Bitra on October 20. The bird was uniform sooty black

¹ The eggs have been identified as eggs of the Large Crested Tern, Sterna bergii, by Mr. C. J. O. Harrison, British Museum (Natural History), London. The chicks have been identified in the Society's office as the Brownwinged Tern, Sterna anaethetus anaethetus.—Eds.

throughout and had a slightly forked tail. Its measurements were: Wing 150 mm., Bill 13 mm., Tail 64 mm., Tarsus 22 mm., and weight 38 grammes. As the bird was in perfect health we released it with a band.

Ardeola grayii (Sykes). Pond Heron.
Solitary bird seen about 15 miles off Bitra.

Egretta sp. [? gularis (Bosc.)]. Reef Heron.

Solitary bird seen at Kavrathi on coral reef.

Pluvialis squatarola (Linnaeus). Grey Plover. Single bird seen on beach at Chetlat.

Pluvialis dominica (P.L.S. Müller). Golden Plover.
Seen at Chetlat and Bitra on the beach.

Charadrius alexandrinus Linnaeus. Kentish Plover.

Seen singly and in flocks of 8 to 10 at Chetlat and Bitra on beach and coral reefs.

Numenius phaeopus (Linnaeus). Whimbrel.

Solitary bird seen on our way from Calicut about 10 miles off Kavrathi.

Numenius arquata (Linnaeus). Curlew.

A flock of three birds seen on the beach at Bitra.

Tringa hypoleucos Linnaeus. Common Sandpiper.

Seen on all the four inhabited islands we visited.

Arenaria interpres (Linnaeus). Turnstone.

The commonest wader we saw. This species was seen in flocks of 8 to 20 at Pitti, Chetlat, Bitra, and Baliapanni.

Calidris minutus (Leisler). Little Stint.

Seen on coral reef at Agathy, Chetlat, and Bitra.

Dromas ardeola Paykull. Crab Plover.

A pair was seen at Bitra by V.C.A.

#### Catharacta sp.

A large Brown Skua (Antarctic Skua?) was seen at Baliapanni atoll, hovering over a gathering of terns and on our way between Calicut and Kayrathi.

#### Sterna anaethetus Scopoli. Brownwinged Tern.

A few hundred seen at Baliapanni where we ringed chicks of this species.

#### Sterna fuscata Linnaeus. Sooty Tern.

Gatherings of this species and Brownwinged Terns seen at Baliapanni.

#### Sterna bergii velox. Cretzschmar Large Crested Tern.

A few hundred birds seen at Pitti sandbank along with Noddy Terns.

#### Anoüs stolidus pileatus (Scopoli). Noddy Tern.

This species was breeding at Pitti. A nestling about two weeks old taken from a crevice in the coral reef at Pitti is being reared by Shri Madhavan. We ringed 18 birds of this species at Pitti.

#### Streptopelia orientalis (Latham). Rufous Turtle Dove.

At Chetlat an islander showed us a bird he had trapped for food. According to local information this species is a frequent visitor to this island after the monsoon.

## Eudynamys scolopacea (Linnaeus). Koel.

A pair was seen on a Banyan tree near the Dak Bungalow at Agathy.

#### Alcedo atthis (Linnaeus). Common Kingfisher.

Single bird seen at Kavrathi.

#### Hirundo rustica Linnaeus. Swallow.

A few birds were seen a mile off shore at Kavrathi.

## Delichon urbica (Linnaeus). House Martin.

A solitary bird came on our ship between Calicut and Kavrathi. A flock of some 10 birds was seen at Chetlat.

## Anthus sp.

A solitary pipit seen on coral reef at Bitra.

#### Motacilla flava thunbergi Billberg. Greyheaded Yellow Wagtail.

A flock of some six birds seen on the beach at Bitra. One could get quite close to these birds.

## Zosterops palpebrosa (Temminck). White-eye.

Seen at Kavrathi, Agathy, and Chetlat. Very common on the first two islands roosting on shrubs (introduced) 4 to 5 feet from the ground.

#### ACKNOWLEDGEMENTS

We are grateful to the Administrator of the Laccadives, Shri Murkot Ramunny, and to Shri E. K. Madhavan, Special Officer for Fisheries, for help extended to us and for the permission to refer to notes kept by the latter.

BOMBAY NATURAL HISTORY SOCIETY, 91, WALKESHWAR ROAD, BOMBAY 6-WB., April 3, 1964.

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#### REFERENCE

HUME, ALLAN OCTAVIAN (1876): The Laccadive and the West Coast. Stray Feathers 4: 413-482.

# 7. OBSERVATIONS ON THE EGG-LAYING OF THE FANTHROATED LIZARD, SITANA PONTICERIANA CUV.

#### (With two plates)

On 20 August 1963 three Fanthroated Lizards, Sitana ponticeriana Cuv., were collected from Vetal Hill, about 3 km. west of Poona. They were kept under observation in a cage made of a wooden box covered with netting and lined with a layer of soil and two or three stones. They were fed with spiderlings, cockroaches, and other small insects. Two of the lizards were adult males and the third a gravid female. One of the males was continually fanning its gular appendage, an act of courtship peculiar to this species.

On the 29th morning at about 10 hours 30 min. the female started digging a hole with its forelimbs, shovelling the earth backward with its hindlimbs. By 11 hours 10 min. the hole was about 3 in. deep (Plate I, 2). Then straddling the hole she laid her first egg at 11 hours